REMARKS

The applicant appreciates the courtesy and helpfulness of the Examiner in a telephone interview initiated by applicant's counsel on August 15, 2007. During the interview, the Examiner indicated that the limitation of "using an operation of the secondary processor intended for another function" recited in proposed claim 21 was probably not sufficient to overcome the cited art. However, she also indicated that the recitation of a specific function, like the draw operation recited in dependent claim 5, might distinguish over the cited art. Therefore, she suggested incorporating that limitation into an independent claim. Applicant's counsel expressed his intention to file an RCE, including an amendment consistent with the Examiner's suggestion.

The Amendments shown below and these Remarks are made in reply to the Office Action mailed March 16, 2007. Claims 1 - 11 and 13 - 20 were examined. Applicant has herein cancelled claims 1 and 7, amended claims 2 - 6, 8 - 11, and 13 – 14, and added new claims 21 – 23. Applicant respectfully requests reconsideration of claims 2 - 6, 8 - 11 and 13 - 23 in view of these Remarks.

I. SUMMARY OF THE EXAMINER'S ACTIONS

A. The Examiner rejected claims 1 - 7 and 13 as obvious under 35 USC §103(a) based on U.S. Patent No. 5,960,213 ("*Wilson*") in view of U.S. Patent No. 5,793,996 ("*Childers*").

B. The Examiner rejected claims 8 - 11 and 14 - 20 as obvious under 35 USC §103(a) based on *Wilson* and *Childers* in view of U.S. Patent No. 5,594,854 ("*Baldwin*").

II. SUMMARY OF THE AMENDMENTS

Applicant has cancelled independent claim 1 and rewritten it as claim 21 for increased clarity. Applicant has amended dependent claims 2 – 6 and 8 – 11 to change the dependency from claim 1 to claim 21, and also to change certain claim terms so that they cooperate with the antecedent bases now set forth in claim 21. Independent claim 14 has been amended to be consistent with the claim language now used in claim 21. Applicant has also added claims 22 – 23. Independent claim 23 recites that a draw operation is used to transform coordinates, and dependent claim 23 recites that the draw operation is a multi-textured draw operation.

III. ARGUMENTS

A. Obviousness Rejections

1. Claims 1 – 7 and 13

Independent claim 1 has been cancelled and replaced by independent claim 21 thereby rendering the rejection moot. As rewritten, independent claim 21 requires:

a. creating and storing data that are arranged in a first predefined order;
b. determining subdivisions of the data based on a predefined size of each datum of the data;
c. determining original coordinates for each subdivision of the data;
d. transforming the original coordinates of each subdivision to new coordinates using an operation of the secondary processor intended for another function thereby obtaining reordered data that are arranged in a second predefined order; and
e. displaying the reordered data.

The Examiner rejected claim 1 as obvious over the combination of *Wilson* and *Childers*, alleging in part that *Wilson* discloses reordering data with a secondary processor "**using an operation that was not provided for that purpose**." (Office Action mailed 3/16/2007 at p. 5, emphasis added). However, applicant respectfully disagrees.

Wilson relates to a multi-function adaptor that allows multiple PCI devices to be placed on an expansion card such that the host system sees only a single multi-function device. As explicitly disclosed in *Wilson*, this adaptor is realized in the GLINT Delta graphics processor sold by 3D Labs Inc. In its prior response, applicant appended information published by 3D Labs in 1996 and 1997, i.e., near the time the application which led to the *Wilson* patent was filed.

The concept of byte swapping is integrated into the GLINT Delta in order to provide compatibility for the Apple PowerMac, which was a big-endian processor. (See Response dated July 15, 2007, Appendix I, Datasheet at p. 2). The present application, however, relates to re-ordering pixel data from big-endian to little-endian or vice versa.

As the Examiner correctly notes, the *Wilson* patent discloses hardware (the GLINT Delta) that "can accept and convert gib-endian data . . . ." (*See* Office Action at p. 2; *Wilson* at col. 4:19-24). However, this appears to be an explicit disclosure of an operation provided specifically for the purpose of converting big-endian data to little-endian data. (*See also* Response dated July 15, 2007, Appendix I, Datasheet at p. 2). This is supported by the hardware description of the control space, which includes a lower 64kb region for access by little-endian processors, and an upper 64kb region that "includes byte swapping for big-endian processors." (*Wilson* at col. 15:16-19). Further, *Wilson* states in two different locations that "[t]he Delta Unit in the GLINT Delta implements the slope calculations and data conversion for graphics primitive in one unit," and further, that "transformation

and lighting calculations are still performed by software on the host processor . . . ." (*Wilson* at 2:42-67 and 20:11-35). Although it is unclear from the explicit teachings of the *Wilson* patent what "data conversion" is carried out in the GLINT Delta unit, and what "transformation" takes place in the host processor, at the least, "data conversion" and "transformation" must be two different functions. However, from the appended documents, it is clear that the "data conversion" carried out in the GLINT Delta unit is a conversion of data from a high precision floating point format to a fixed point format "thus avoiding consuming data conversions which can bottleneck 3D system performance." (*See* Response dated July 15, 2007, Appendix I, Datasheet at p. 1; Appendix II, GLINT Delta presentation at p. 19).

Thus, applicant submits that the data conversion functions set forth in the *Wilson* patent are explicit functions of the GLINT Delta specifically provided for the purpose of (i) converting big-endian data to little-endian data, and (ii) converting data from a high precision floating point format to a fixed point format.

In contrast, new claim 21 requires that the secondary processor transform the coordinates of each subdivision using an operation intended for another function, such as a textured draw command as recited in dependent claim 5.

Applicant therefore submits that *Wilson* fails to teach or suggest using the secondary processor to transform the coordinates of each subdivision of the pixel data **using an operation intended for a function other than transforming the coordinates**. Further, none of the art of record provides this teaching. Thus, claim 21 is believed to be patentable over the cited combination and the Examiner is urged to withdraw the rejection under Section 103. Further, claims 2 – 6 and 13 have been amended to depend from claim 21, and should also be allowable since the corresponding independent claim is allowable.

2. Claims 8 – 11 and 14 - 20

Claims 8 – 11 have been amended to depend from claim 21, and applicant submits these claims are allowable since the corresponding independent claim is allowable.

Independent claim 14 has been amended so that the claim language is consistent with that of new claim 21. For all the reasons set forth above, claim 14 is also considered patentable over the cited art. Further, claims 15 - 20 depend from claim 14, and are therefore allowable since the corresponding independent claim is allowable.

2. New Claims 22 – 23

Independent claim 22 has been added to recite that the operation used to transform coordinates is a draw operation. Neither of the cited prior art references teaches or suggests that a draw operation could be used to transform coordinates. For that reason, claim 22 is believed to be patented over the cited art. Likewise, claim 23 recites a more specific draw operation, namely a multi-textured draw operation. For the same reasons, and also because it is dependent from claim 22, claim 23 is also believed to be patentable.

B. Conclusion

Based on the above amendments and these remarks, reconsideration of the claims as now pending is respectfully requested.

The Examiner's prompt attention to this matter is greatly appreciated. Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 501826 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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By: /Richard A. Nebb/
Richard A. Nebb
Reg. No. 33,540
rnebb@vierramagen.com

VIERRA MAGEN MARCUS & DENIRO LLP
575 Market Street, Suite 2500
San Francisco, CA 94105-2871
Telephone: (415) 369-9660
Facsimile: (415) 369-9665